

## **RADIALLY-EXPANDABLE PTFE TAPE-REINFORCED VASCULAR GRAFTS**

### Abstract of the Disclosure

A tape-reinforced tubular vascular graft formed of sintered fluoropolymer(s), such  
5 as expanded, sintered PTFE. The graft includes a base graft and a reinforcing tape applied  
thereto. The tape may be spirally wrapped about the graft or spirally wrapped into a tube  
about a cylindrical mandrel and then applied to the exterior of the graft. Radial shrinkage  
of the combined base graft and tape, or of the reinforcing tape tube, renders the vascular  
10 graft subsequently radially enlargeable by more than 5%, without tearing or breaking of the  
reinforcement tape layer of the graft. Radially enlargeable grafts of the present invention  
may be combined with various types of stents or anchoring systems, to form endovascular  
graft devices which are transluminally insertable and implantable within the lumen of a  
host blood vessel. Alternatively, radially enlargeable grafts of the present invention may be  
15 implanted by way of traditional surgical graft implantation techniques, without any radial  
enlargement of the graft at the time of implantation, so as to take advantage of the  
improved strength properties and suture-holding properties of the radially-shrunken tape-  
reinforced grafts of the present invention.